Office of the Chief Medical Examiner

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Annual Review 1983

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Introduction

The Office of the Chief Medical Examiner of the Province of Alberta is responsible by statute* for the investigation and certification of deaths by violence, sudden death while in apparent good health, unattended deaths, drug-related deaths and in cases where death may be due to a cause that may endanger the health of the general public. The area of jurisdiction is the Province of Alberta, with a population of approximately 2.4 million. In addition to the resident population, the Medical Examiner has jurisdiction over the many tourists who travel throughout the province each year.

The Medical Examiner system, under the direction of the Chief Medical Examiner, is managed from two regional offices, one located in Calgary and the other in Edmonton. Both of the regional offices are under the direction of a Deputy Chief Medical Examiner. The Edmonton office administers the northern part of the province; the Calgary office administers the geographical area south of a horizontal line between Jasper and Provost, through Hobbema. In each office, there is a permanent staff of 5 Medical Investigators, 7 Forensic Autopsy Technicians and 2 Record Technicians. Additional staff members are Supervisors, Administrators, Photographers, Research Officers and Secretaries. The Chief Medical Examiner is based in Calgary. Recruitment is in progress to fill two open Pathologist positions.

The central offices are open for business daily from 8:15 a.m. to 4:30 p.m. A Medical Investigator and Medical Examiner are on duty evenings and weekends for investigations and consultations. Autopsies and examinations are routinely performed daily. The main toxicology laboratory is in the Edmonton office, with 3 full-time forensic toxicology staff under the direction of a Chief Toxicologist. Space and equipment has been allocated for a toxicology laboratory in the Calgary office.

Approximately 150 Medical Examiners and 35 Regional Pathologists are on a part-time, fee-for-service basis throughout the province. In the central offices, 2,260 cases or 57.3% of the Medical Examiner cases were investigated and certified by the full-time Medical Examiner's staff. The remainder of the cases were examined and certified by part-time Medical Examiners who are assisted by Pathologists and City/R.C.M. Police in other parts of the province. Their continuing support and willingness to perform this valuable community service has made it possible to maintain a provincial Medical Examiner system.

In 1983, a total of 4,502 deaths were reported to the Medical Examiner. This accounts for approximately 1 out of 3 deaths in Alberta during that period. This report includes the cause and manner of death, the township of origin and other pertinent information.

* Fatality Inquiries Act

Caseload Statistics

CASELOAD SUMMARY

Total cases reported	4,502
Total cases investigated	3,935
Total medico-legal autopsies	2,096
Percentage of cases autopsied	53.3

CERTIFIED CASES

Manner of Death*	Total Cases	Aggregate Rate per 100,000 population
Natural	2,243	94.7
Accidental	806	34.1
Suicidal	420	17.8
Homicidal	67	2.8
Unclassified	201	8.5
Undetermined	74	3.1
Acceded**	124	
Total Certified cases	3,935	
Sudden death rate per 100,000 pop.		166.5

* Manner of Death — means the mode or method of death whether natural, homicidal, suicidal, accidental, unclassified or undeterminable.

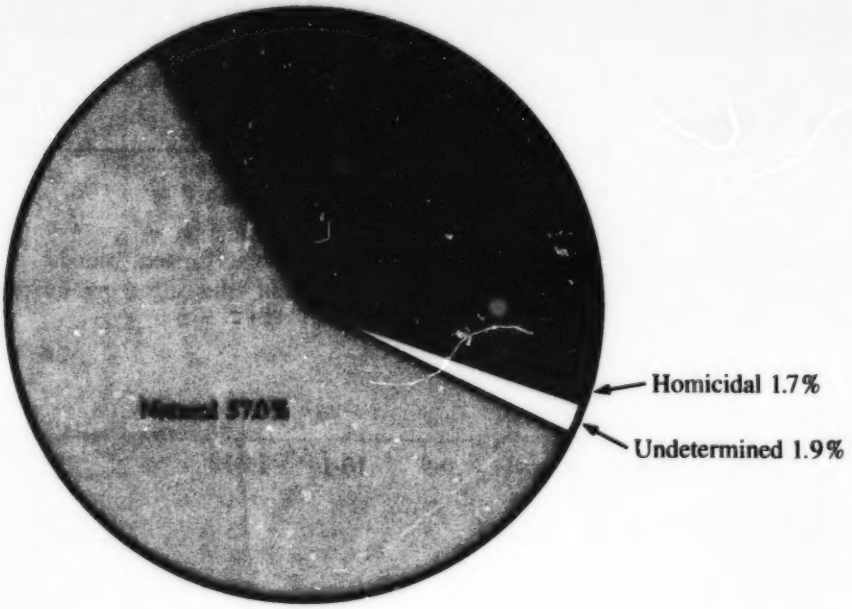
** Acceded — Cases investigated by the Medical Examiner after the fact; ie: reportable deaths inadvertently or improperly certified by attending Physicians. These cases come to the attention of the Medical Examiner during the routine review, by the Medical Examiner, of *all* death certificates issued in Alberta.

REGIONAL DISTRIBUTION OF CASES

	Calgary	South Rural	Edmonton	North Rural
Natural	631	405	854	353
Traffic Deaths*	65	143	67	163
Non Traffic Deaths	46	114	84	124
Suicidal	106	70	120	124
Homicidal	17	14	23	13
Unclassified	46	20	99	36
Undetermined	14	21	20	19
Acceded cases	40	39	28	17

* Accidental Deaths were separated into two categories: traffic-related accidents and non-traffic accidents investigated by the Medical Examiners.

PROVINCE OF ALBERTA
MEDICAL EXAMINER CASES



CASELOAD REVIEW 1975-83

	Calgary	South Rural	Edmonton	North Rural	Provincial Total
1975	664	656	689	741	2,750
1976	669	572	602	764	2,589
1977	678	800	658	827	2,963
1978	783	796	902	911	3,392
1979	920	876	1,084	975	3,855
1980	1,011	957	1,142	983	4,093
1981	944	934	1,223	917	4,018
1982	973	838	1,325	884	4,020
1983	965	826	1,295	849	3,935

REFEREED CASE REVIEW

	1981	1982	1983
Calgary	323	295	304
South Rural	70	45	104
Edmonton	124	98	225
North Rural	41	45	58
Total	558	483	691

"Refereed" cases are deaths reported to the Medical Examiner according to section 15 of the Vital Statistics Act, deferred to the attending physician on the basis that the death was natural, that he is able to certify the medical cause of death with reasonable accuracy and that he has received the consent of the Medical Examiner.

Types of Deaths Investigated and Certified

1 Homicides

Method	Total	Method	Total
Firearm	17	Strangulation	2
Drowning	2	Stabbing/Incised Wounds	19
Arson	2	Blunt Trauma(beating, instrument)	25
			67

AGE, GENDER DISTRIBUTION

	Male	Female	0-9	10-14	15-19	20-29	30-39	40-49	50-59	60+
Calgary	11	6	-	-	1	3	8	3	1	1
South Rural	11	3	3	-	3	2	2	1	3	-
Edmonton	14	9	-	-	4	4	5	4	4	2
North Rural	9	4	1	-	1	5	4	1	-	1
	45	22	4	-	9	14	19	9	8	4

2 Suicides

Region	Male	Female	Total
Calgary	79	27	106
South Rural	56	14	70
Edmonton	84	36	120
North Rural	103	21	124
	322	98	420
	(76.7%)	(23.3%)	

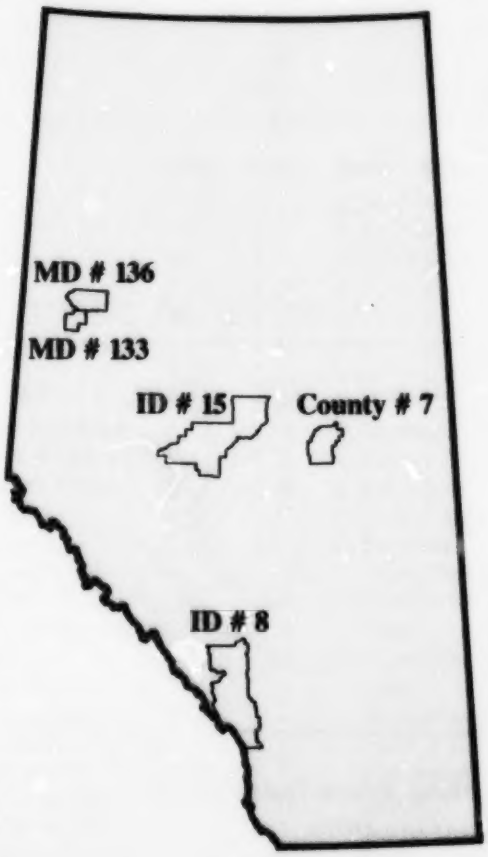
MONTH OF DEATH

	Edmonton	North Rural	Calgary	South Rural	Total M	Total F
January	9	4	12	4	18	11
February	7	5	9	6	20	7
March	11	14	11	4	30	10
April	10	9	8	4	25	6
May	7	20	8	10	43	2
June	8	5	4	5	17	5
July	6	11	7	-	15	9
August	12	10	7	7	30	6
September	7	8	11	6	23	9
October	15	7	9	8	33	5
November	14	17	5	11	35	12
December	14	15	15	5	33	16
					322	98

Age Group	Male	Female
10-14	2	1
15-19	36	6
20-24	50	9
25-29	50	12
30-34	39	13
35-39	24	11
40-44	25	11
45-49	23	10
50-54	17	10
55-59	19	5
60-64	9	3
65-69	9	3
70-74	15	2
75 +	4	2
Total	322	98

METHOD

	Male	Female	Total	Method %
Exposure	2	-	2	.5
Asphyxia	3	2	5	1.2
Firearm	138	14	152	36.2
Hanging	55	20	75	17.9
Incised Wounds	4	3	7	1.7
Drug Overdose	31	30	61	14.5
Jumping	6	3	9	2.1
Pedestrian/Train	1	-	1	.2
Motor Vehicle Crash	2	-	2	.5
Carbon Monoxide Poisoning	71	19	90	21.4
Substance Poisoning	7	5	12	2.9
Drowning	2	2	4	.9



SUICIDE RATES FOR ALBERTA MUNICIPALITIES 1982 - 1983

The municipalities with the highest suicide rates are:

1982

ID # 8	=	5.0/1,000 pop.
ID # 15	=	5.9/1,000 pop.
County # 7	=	9.8/1,000 pop.

1983

MD # 133	=	11.3/1,000 pop.
MD # 136	=	6.3/1,000 pop.
County # 7	=	9.8/1,000 pop.

ALBERTA SUICIDES 1975-1983

	1975	1976	1977	1978	1979	1980	1981	1982	1983
Calgary	78	84	88	90	83	130	94	109	106
South Rural	69	60	76	79	56	91	70	63	70
Edmonton	68	97	89	84	104	99	97	112	120
North Rural	72	78	97	81	82	107	103	97	124

ALBERTA SUICIDE RATES PER 100,000 POPULATION

Year	Estimated Population (000's)	Total Suicides	Rate/100,000	Year	Estimated Population (000's)	Total Suicides	Rate/100,000
1960	1,291.1	115	8.9	1972	1,675.3	212	12.6
1961	1,332.0	120	9.0	1973	1,689.5	222	13.1
1962	1,369.0	120	8.8	1974	1,722.4	281	16.3
1963	1,402.0	118	8.4	1975	1,811.8	287	15.8
1964	1,430.0	162	11.3	1976	1,885.2	319	16.9
1965	1,450.0	162	11.2	1977	1,965.8	350	17.9
1966	1,463.2	145	9.9	1978	2,028.8	334	16.5
1967	1,490.0	135	9.1	1979	2,109.6	325	15.4
1968	1,524.0	160	10.5	1980	2,205.1	400	18.1
1969	1,559.0	195	12.5	1981	2,293.5	364	15.9
1970	1,595.0	204	12.8	1982	2,347.7	381	16.2
1971	1,627.9	191	11.7	1983	2,361.0	420	17.8

SUICIDE RATES PER 100,000 POPULATION
PROVINCIAL/TERRITORIAL RATES 1975-1982

	1975	1976	1977	1978	1979	1980	1981	1982
National Rate	12.4	12.8	14.3	14.8	14.1	14.0	14.0	13.9
NFLD	3.5	3.8	3.7	2.6	4.4	3.4	4.2	6.0
PEI	11.9	19.5	10.0	13.1	13.1	11.4	7.4	8.9
NS	10.4	10.4	11.3	12.5	12.6	11.5	10.9	12.2
NB	8.0	10.9	10.5	12.9	12.1	11.6	11.1	12.9
QUE	9.3	10.5	12.4	14.2	15.4	14.8	16.4	16.5
ONT	13.5	13.0	14.5	14.3	13.0	13.1	12.5	12.7
MAN	13.1	14.1	17.5	15.4	14.7	11.8	14.0	13.4
SASK	14.9	14.0	15.6	17.3	14.9	15.9	17.7	17.5
ALTA	15.8	16.9	17.9	16.5	15.4	18.1	15.9	16.2
BC	16.9	16.4	17.6	18.3	16.2	14.8	14.5	15.0
YUKON*	1.9	1.8	2.4	3.2	2.7	5.0	2.2	2.9
NWT*	1.7	1.6	2.8	5.5	1.8	2.0	2.2	1.7

* Rates based on 10,000 pop.

3 Traffic Accidents

Motor Vehicle

- Driver	212
- Passenger	94
- Unknown occupant	4
	310

Motorcycle

- Driver	53
- Passenger	6
	59

Motor Vehicle/Train Collision

- Driver	4
- Passenger	3
	7

Pedestrians

- Motor Vehicle	52
- Train	2
	54

Bicycle/Motor Vehicle Collision 8

FATALITIES

Age Group	Calgary	South Rural	Edmonton	North Rural	Total	
					Male	Female
0-9	3	7	6	13	20	9
10-19	12	24	9	24	49	19
20-29	30	46	20	49	113	32
30-39	9	26	10	26	48	23
40-49	3	12	7	8	20	10
50-59	2	14	2	24	30	12
60-69	2	8	-	9	12	7
70 +	4	6	14	7	20	11
unavailable					2	1
	65	143	67	163	314	124

Month of Occurrence	Total	Month of Occurrence	Total
January	16	July	42
February	39	August	64
March	24	September	36
April	31	October	45
May	27	November	42
June	42	December	30

4 Non-traffic Accidents

Category	Total	Category	Total
Farm Machinery	17	Hydrogen Sulfide Poisoning	1
Sport Vehicles	7	Hit by Objects in Motion	14
Aircraft Crash	8	Cave In	2
Firearm	8	Pedestrian / Train Cars	3
Drowning	57	Pedestrian / residential	8
Hypothermia	15	Train Derailment	5
Asphyxiation	9	Carbon Monoxide Poisoning	22
Crush Asphyxia	6	Fire	52
Aspiration	14	Hyperthermia	1
Dog Mauling	1	Falls	73
Allergic Reaction	1	Therapeutic Misadventure	9
Mountain Climbing	7	Farm Animals	4
Parachuting	1	Electrocution	2
Hit by Falling Trees	6	Skiing	2
Methanol Poisoning	1	Scuba Diving (exclude 1 drown)	1
Mine Explosion	1	Falling Thru Glass	2
Propane Gas Explosion	1	Ethanol Poisoning	1
Other Specified	6		

AGE GROUP

	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80 +
Calgary	9	8	7	4	2	6	5	3	2
South Rural	10	12	22	16	11	12	12	9	10
Edmonton	8	2	9	7	4	9	7	12	26
North Rural	16	13	28	21	7	14	11	9	5
Male	22	26	57	43	21	35	27	24	19
Female	21	9	9	5	3	6	8	9	24

MONTH OF OCCURRENCE

	Male	Female		Male	Female
January	14	14	July	36	9
February	20	5	August	25	5
March	18	11	September	24	6
April	28	8	October	28	8
May	21	5	November	16	6
June	26	8	December	18	9

SPORT/RECREATIONAL RELATED

Activity	Total Deaths	Activity	Total Deaths
Swimming	13	Rodeo	1
Boating	8	4 Wheel Driving	1
Fishing	13	Dirt Biking	2
Hunting	3	Dune Buggy	3
Scuba Diving	2	All Terrain Motoring	3
Skiing	2	Off-road Motorcycling	1
Mountain Climbing	7	Snowmobiling	1
Horseback Riding	2	Bicycling	9
Rafting	1	Camping	3
Parachuting	1		
			76

CARBON MONOXIDE POISONING

Circumstance	Total Deaths
- Vehicle running in closed garage	9
- Exhaust seeping into residence from attached garage	1
- Sitting in parked vehicle while motor is running	2
- In back seat of moving vehicle with a faulty exhaust system	1
- Furnace malfunction in residence	5
- Improper ventilation for propane heaters in recreational vehicles	4
	22

OCCUPATION-RELATED ACCIDENTS

Occupation Site	Circumstance	Total
Oil rig/Oil field site	- hit by falling pipe	1
	- struck by well head	1
	- struck by boom	1
	- caught by drill pipe	1
	- gas explosion	1
Gas Plant	- hydrogen sulfide poisoning	1
Mine	- cave-in	1
Sawmill/Woodshop	- struck by saw blade	1
	- struck by wood	2
Logging Camp	- struck by falling trees	4
Tagging Fish	- drowning; boat capsized	2
Construction	- fall	9
	- struck by object	3
Shipping Yard	- struck by object	2
Railroad Yard	- pedestrian/moving box cars	3
Excavation	- pedestrian/motor vehicle	3
	- electrocution	1
	- cave-in	1
	- hit by object	1
Military Training	- land-mine explosion	1
Airforce Training	- plane crash	1
Rail Line	- train derailment	1
Forest Fire Training	- helicopter crash	1
Breeding Farm	- attacked by bull	1

DROWNINGS

Manner of Drownings

Accidental Drownings	62*
Suicidal Drownings	4
Unclassified Drownings	2
Undetermined Drownings	7

*Total of 5 involved traffic accidents

Month of Occurrence

	Male	Female
January	-	-
February	-	-
March	3	-
April	3	2
May	2	1
June	7	3

Month of Occurrence

	Male	Female
July	15	2
August	10	2
September	3	1
October	3	-
November	-	-
December	-	-

Activity		Male	Female	Age Group 0-5	6-12	13-19	20-29	30 +
FISHING	- Canoe capsized	2	-			1		1
	- Boat capsized	2	1			1		2
	- Slipped (retrieving gear)	2	-				2	
	- Vehicle thru ice	1	-				1	
	- Fall from embankment	3	-				2	1
	- Fell overboard	1	-					1
SWIMMING	- River	2	-		1		1	
	- Lake	3	-			1	1	1
	- Dug-out	-	1		1			
	- Irrigation canal	1	-			1		
	- Whirlpool	1	-		1			
	- Public pools	4	1	1	1		2	1
BOATING	- Sailboat capsized	1	-				1	
	- Canoe capsized	3	-				2	1
	- Motorboat capsized	1	-				1	
	- Powerboat explosion	-	1					1
	- Fell overboard	2	-					2
FELL INTO	- Swimming pool	1	-	1				
	- Ditch	-	1			1		
	- Lake/river	2	3	1				4
	- Dug-out	-	2	1				1
	- Well	1	-	1				
	- Went thru ice	1	-					1
OTHER	- Tagging fish	2	-				1	1
	- Horseback riding	2	-				1	1
	- Jump from bridge	1	-					1
	- 4 wheel driving	1	-				1	
	- Motoring on ice	1	-					1
	- Inner tubing	1	-				1	
	- Scuba diving	1	-					1
	- Sewer drainage	1	-		1			
	- Bicycling	1	-				1	
	- Bathing in bathtub	-	1					1
	- Helicopter crash	1	-					1

5 Sudden Infant Death Syndrome

(also referred to as Crib Death, Cot Death and Sudden Unexpected Death in Infancy)

It is the leading cause of death among infants from 1 week to 1 year of age. In Alberta, S.I.D.S. accounted for 85 infant deaths in 1983. The overall incidence of S.I.D.S. has been reported as 2 cases per 1,000 live births. Although it can occur at any time during the first year of life, the peak incidence in Alberta is in the 1 to 3 months range.

AGE GROUP

	Calgary	South Rural	Edmonton	North Rural
less than 1 month	5	1	4	3
1 to 3 months	6	8	13	15
4 to 6 months	3	7	7	8
7 months & older	1	1	2	1
	15	17	26	27

REGION

	1980	1981	1982	1983
Calgary	14	22	24	15
South Rural	20	16	22	17
Edmonton	17	25	26	26
North Rural	28	27	24	27
Total	79	90	96	85

LOCATION OF S.I.D.S. (Southern Alberta)

Location	1980	1981	1982	1983	Location	1980	1981	1982	1983
Rocky Mt. House	1	2	-	1	Red Deer	4	1	1	1
Lethbridge	3	2	4	-	Medicine Hat	2	2	1	2
Nanton	1	1	-	-	Taber	1	-	-	-
Eckville	1	1	-	-	Black Diamond	1	1	-	-
Magrath	1	-	-	-	Brooks	1	-	-	-
Sylvan Lake	1	-	1	1	Pincher Creek	1	-	-	-
Sterling	1	-	-	-	Fort Macleod	1	1	1	-
Brocket	-	1	-	1	Blood Reserve	-	1	-	-
Stettler	-	1	1	-	Lacombe	-	1	-	-
Ponoka	-	1	-	1	Turner Valley	-	-	1	-
Rolling Hills	-	-	1	-	Carsland	-	-	1	-
Olds	-	-	1	-	Raymond	-	-	1	-
Lundbreck	-	-	1	-	Three Hills	-	-	1	-
Airdrie	-	-	1	1	Didsbury	-	-	1	-
Innisfail	-	-	1	-	Bassano	-	-	1	-
Caroline	-	-	1	-	Rockyford	-	-	-	1
Clive	-	-	-	1	Carstairs	-	-	-	1
Hillcrest	-	-	-	1	Purple Springs	-	-	-	1
Redcliff	-	-	-	1	Scandia	-	-	-	1
Unavailable	-	-	-	2					

6 Undetermined Deaths

Total Cases	Causes of Death
1	Anoxia, Cardiac Arrest
1	Asphyxia, Plastic Bag
2	Asphyxia, Compression
1	Asphyxia, Face covered
4	Blunt Trauma Injuries
3	Carbon Monoxide Poisoning
1	Cardiac Tamponade
1	Cholestomy
7	Drowning
1	Drug OD, Morphine
2	Drug OD, Digoxin
2	Drug OD, Codeine
3	Drug OD, Multi-drug
1	During Child Birth
1	Ethanol Withdrawal Seizure
2	Falls
2	Fire
1	Hanging
1	Hemorrhage Ulcer
1	Hepaticellular Cirrhosis
1	Pedestrian/Motor Vehicle
1	Pedestrian/Train
1	Pulmonary Edema
1	Poisoning, Chloral Hydrate
1	Poisoning, Lidocaine
1	Poisoning, Methanol
2	Poisoning, Ethanol
1	Poisoning, Multi Chemical
1	Poisoning, Malathion + Xylene
2	Subdural Hemorrhage
1	Traumatic Hemorrhage
23	**Anatomically Unascertainable

"Undetermined" — Where it is unknown if the manner of death is accidental, suicidal or homicidal.

**"Anatomically Unascertainable" — Where the cause of death is unknown; the cause is anatomically and toxicologically unascertainable following post-mortem examination.

7 Unclassified Deaths

Total Cases	Causes of Death
124	Chronic and/or Acute Alcoholism and Sequelae
27	Alcohol and Drug Overdose
28	Drug Overdose
2	"PAM" Inhalation
2	Fire Related due to Intoxication
3	Fall Related due to Intoxication
2	Drowning due to Intoxication
9	Hypothermia due to Intoxication
1	Carbon Monoxide Poisoning due to Intoxication
3	Aspiration on Food due to Intoxication

"Unclassified" — This is the manner of death in which evidence of alcoholism or any drug/substance misuse is a direct part of the primary medical cause of death.

Public Inquiries

Fatality Review Board — The Fatality Inquiries Act, 1976, Chapter F6, Statutes of Alberta, Part I, provides for a Board, consisting of three persons appointed by the Lieutenant-Governor-in-Council. One member of the Board must be a physician, one a member of the Law Society of Alberta and one a lay member. The Chief Medical Examiner for Alberta is an ex-officio, non-voting member of the Board.

Public Inquiry — One of the main duties of the Board, as set out in Section 3 of the Act, is:

Review investigations under the Act in order to determine the need for holding a Public Inquiry.

The Chief Medical Examiner is required by the Act to notify the Board of certain deaths which have been the subject of an investigation. The Board is then required to either recommend or not recommend a Public Inquiry. If the recommendation is affirmative, the Attorney General must order the Inquiry.

Public Inquiries are organized by the Civil Law branch of the Department of the Attorney General from whose staff are drawn counsel for the Inquiries. Inquiries are heard by Judges of the Provincial Court at points nearest the places of death.

PUBLIC INQUIRIES SUMMARY

	Judicial Recommendations for the Prevention of Similar Deaths:	
Manner of Death	Given	Not Given
Natural Deaths	-	3
Accidental Deaths	18	14
Suicidal Deaths	5	5
Homicidal Deaths	-	1
Undetermined Deaths	-	4
Total	23	27

TYPES OF PUBLIC INQUIRIES

A) Hospital/Institutional Related

- Administration of an Overdose	1
- Insulin Overdose	1
- Drowning	1
- Suicide	3
- Alcohol Withdrawal Seizure	1
- Brain Death	1
- Natural	1
- Undetermined	1
	10

B) Motor Vehicle Related

- Gravel Truck/Gravel Truck Collision - Construction Zone	1
- Truck/Semi - Trailer Collision - Wet Pavement	2
- Fall from Truck Body	1
- Backed over an Embankment	2
	6

C) Occupational Related

- Electrocution	1
- Crush, Loading Dock Warehouse	1
- Fall from Crane, Construction	1
- Flash Explosion, Gas Plant	1
- Struck by Object, Oil Rig Sites	2
- Attacked by Bull	1
- Helicopter Crash	1
- Oxygen Depleted Atmosphere - Oil Rig Site	2
	10

D) Fire Related

- Fire in Motor Vehicle	1

E) Police/Incarceration Related

- Suicides while in Custody	3
- Drowning while in Custody	1
- Undetermined Poisoning	1
- Suicide Investigation	1
	6

F) Sport/Recreational Related

- Drowning, Swimming Pool	1
- Drowning, Diving	1
- Hit Stationary Object, Skiing	1
- Avalanche, Skiing	1
- Sky Diving	2
- Fall from Pony	1
- Ultra-light Aircraft Crash	1
	8

G) Other Classified

- Accidental Asphyxia	1
- Accidental Fall	1
- Homicide	1
- Suicide	3
- Natural	2
- Undetermined	1
	9

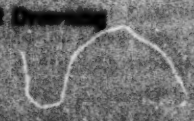
Responses to Judicial Recommendations

ALBERTA GOVERNMENT DEPARTMENTAL RESPONSES TO RECOMMENDATIONS MADE AT PUBLIC INQUIRIES CONVENED UNDER PROVISIONS OF THE FATALITY INQUIRIES ACT APRIL 1, 1983 TO MARCH 31, 1984

CASE		RECOMMENDATIONS	RESPONSE
1 Gunshot Wound	Suicidal. Salvation Army notified City of Calgary Police of an incident involving the deceased and his unexplained possession of a shotgun. After futile attempts to have deceased exit the suite, police left the scene.	1) It is clear from Section 23 of the Mental Health Act that police could apprehend and convey without a warrant issued under Section 22. 2) A provision must be made for availability of Mental Health warrants 24 hours a day, 7 days a week. 3) This situation should be drawn to the attention of the Provincial Task Force presently reviewing the Mental Health Act and related legislation.	**Solicitor General** The Director of Law Enforcement is reviewing all recommendations with Chiefs of Police throughout Alberta.
2 Multiple Skull Fractures	Accidental. Skiing at Lake Louise during a ski-a-thon. His head struck a wooden board fence.	1) Fences should be padded with some type of material of sufficient absorbency. 2) The fence should be padded on side where young children use the tow rope in Kiddy Land area. 3) If the above recommendations are not practical, then the fence should be torn down and the Kiddy Land area moved to another safe area.	**Recreation and Parks** All recommendations have been forwarded to the appropriate parties responsible.
3 Asphyxiation	Accidental. He was leading a group of skiers. While he was descending on a slope to test the area, snow above dislodged and buried him. Location South of Canmore on Tent Ridge.	1) Government of Alberta to liaise with the Association of Canadian Mountain Guides, the Association of B.C. Mountain Operators and other [illegible] persons, with a view to assist legislation, regulations and guidelines for the safety operation of [illegible] skiing and [illegible] in the Province.	**Recreation and Parks** Departmental staff are actively reviewing recommendations, presently existing legislation and related operational policies.

CASE			
4 Hanging	Suicidal. She was serving a sentence at the Fort Saskatchewan Correction Centre. She was placed in the segregation cell where the incident took place.	1) Managers and supervisors to have a better knowledge of personal files on inmates. 2) The segregation cell which was used to hold deceased should never be used again. 3) The job specifications for each staff member should be reviewed, clarified and reduced to writing and likewise the Correctional Centre policies and procedures. 4) Communications between all levels of personnel should be re-examined with a view to improving the same.	**Solicitor General** 1) Operational policy provides supervisory and management personnel with adequate access to inmate files. A review of all procedures is in effect at all correctional centres respecting use of segregation units. 2) The use of this cell for segregation purposes was discontinued June 2, 1983. 3) Policies and procedures are reviewed on an ongoing basis. The specific responsibilities of correctional personnel are described in detail in job descriptions at each correctional institution.
5 Hanging	Suicidal. Was a chronic schizophrenic patient at the Alberta Hospital, Edmonton. He was transferred to a unit to prepare him for a discharge into the community. The deceased expressed some anxiety over his discharge to the staff, but the staff were satisfied that he could cope with the situation.	1) It is recommended that where patients are chronically ill or where the attending psychiatrist has any doubts as to the patients readiness for discharge, a Board of two psychiatrists, the psychiatric nurse in charge of the unit, approve the attending psychiatrists recommendations.	**Hospitals and Medical Care** Alberta Hospital has initiated measures to strengthen discharge and review procedures.
6 Secondary Drowning	Accidental. Deceased was a resident of St. Pauls Group Home, diagnosed as "developmental retardation — Downs Syndrome". He was participating in a recreation program at the Aquatic Centre.	1) A program of Education be instituted among members of the public together with: mandatory prescribed training of First Aid, Ambulance, life guard and swim instructors personnel on the likeliness of "secondary drowning" setting in within a period of 72 hours of incident. 2) During programs or sessions involving organized groups there be in attendance at least 2 or more experienced attendants duly trained and qualified in techniques, and be available on either side of the pool.	**Alberta Recreation and Parks** The Department, in conjunction with Royal Life Saving Society of Canada and Canadian Red Cross, are taking steps to determine what action is warranted.

CASE		RECOMMENDATIONS	RESPONSE
7 Massive Head Injuries to head and neck	Accidental. He was unloading a 45' trailer at the loading dock of Canadian Pacific Transport, Edmonton. The front end of the trailer dropped back and a steel bridge fell crushing deceased.	**1) Fork lifts should never be used without safety approved protective cages.** **2) Tractor units should not be removed from under the front end of the trailer unit until the dollies are drawn and the stabilizer legs are in place. There should be no personnel in or around unit during this operation.** **3) Trailers should be modified to enable their positioning and sitting in place prior to the removal of the tractor.** **4) Close inspection of damage must be made and the facility not to be used until repairs have been made effective.**	**Occupational Health and Safety** All recommendations have been noted and copies distributed to our inspection branches.
8 Gunshot Wound	Suicidal. Shot himself at the backyard of his farm house. Was transported to Royal Alexandra Hospital, Edmonton, where he died.	**1) Medical treatment of injured person should be given at the scene. Injured persons must be transported to medical facilities as quickly as possible.**	**Hospital and Medical Care** Mechanisms are being planned to follow-up on incidents of this sort.
9 Massive Internal Hemorrhage	Accidental. He was employed as a herdsman at the Western Breeder Ltd. at Balzac. He entered a pen of a mature Holstein Bull. The bull bunted the deceased.	**1) All persons dealing with bulls should be properly trained and made fully aware of the dangers.** **2) This hearing should be used in training as an object example of the mistake made whenever usual precautions are relaxed.**	**Alberta Agriculture** The circumstances leading to the fatality are being incorporated as a scenario or case study in future livestock safety workshops.
10 Serious Internal Injuries	Accidental. Deceased was working as a floorhand on a drilling rig handling the breakout tongs. The cable line to the tongs caught on bolts on the cat head causing the tongs to swing quickly striking the deceased. Laredo Drilling Rig N.E. of Peace River.	**1) Compliance with present OH & S regulations would have prevented this accident.** **2) More frequent spot checks by safety officers with the right to suspend operation of oil rigs if management disregards safety regulations.** **3) Immediate reporting of accidents be compulsory under threat of penalty.** **4) Standard of guard surrounding cathead be established by regulations.**	**Occupational Health and Safety** The findings and recommendations are being actively reviewed and considered.

1 Drowning	Accidental. The deceased was a resident of the Howard House (Half-way House). She was found dead in the bathtub.	b) That [illegible]	**Social Services and Community Health** The Department has reviewed the feasibility of ensuring that: the bathing area of social care facilities be equipped with non-slip surfaces and that the most appropriate mechanism be utilized for ensuring immediate emergency access by staff to bathing and toileting areas in social care facilities. The above guidelines have been included within the revised Residential Services Manual. **Solicitor General** Staff have been made aware of this recommendation. a) with respect to our own institutions. b) with respect to all privately operated institutions with which we have contracts. c) with respect to the John Howard Facility. All correctional institutions and privately operated community residential centres were advised to ensure that the recommendation be implemented. A copy was sent to the Minister of Labour as he has responsibility for Building Code.
12 Drowning 	Accidental. Uncertified diver, made a dive into Twin Lakes (with another experienced diver). Deceased reached a depth of 90' and was unable to rise to the surface because of too much weight. The other diver released the weight belt and unsuccessfully attempted to operate the emergency release of decedent's buoyancy compensator.	b) Greater means of [illegible]	**Solicitor General** Director of Law Enforcement in this Department has been asked to circulate the substance of the recommendation to the various police agencies of Alberta.

[illegible]	Accidental. Deceased was a pilot of an ultralight aircraft. The aircraft had engine failure, followed by unsuccessful landing attempt due to slatting of the aircraft.	[illegible]	**Transport Canada** Transport Canada and The Microlight owners and Pilots Association of Canada have worked closely over the past year to ensure the requirements and regulations proposed for microlights are sensible and workable.
[illegible]	Accidental. Struck by moving suspended object on a cactus. Drilling site near Milk River, County of Warner.	[illegible]	**Occupational Health and Safety** 1) An engineering group has been assigned responsibility to work with the drilling industry and manufacturers to develop a standardized control panel. A high priority is assigned to this project. 2) While headgear described by Judge could be designed it would seem very doubtful that it could be used in the drilling environment where freedom of movement/ vision are so important. 3) Guarding systems would only further constrict and clutter the work area. It is our intention to encourage a study in this area under the auspices of the Heritage Fund, OH & S Grant Program. 4) The Division is to explore this possibility with the industry. 5) Division is studying the possibility of increasing the number of First Aiders required during drilling or service operations. 6) **Alberta Government Telephones** If a normal telephone line is impractical or impossible, the following alternatives are or will be available: a) fixed mobile station near drilling rig;

CASE		RECOMMENDATIONS	RESPONSE
		OH & S in the preparation of more adequate and complete safe work orders and including orders. Detailed reasons and prompting of any safety breach should be made.	b) a specially developed rural radio circuit configuration engineered to suit the situation. c) point-to-point radio systems are designed and supplied. Satellite communications can be provided. 7) Steps have been implemented to ensure that all orders issued meet the minimum requirements established by our Operating Procedures.
15 Irreversible Severe Cerebral Damage Caused by Insulin Poisoning	Accidental. Admitted to Misericordia Hospital suffering from what apparently was diagnosed as "Chronic" pancreatitis. She encountered irreversible severe cerebral damage due to hypoglycemia caused by insulin poisoning after continuing an intravenous insulin drip after discontinuing all T.P.N. (Total Parenteral Nutrition).	1) That the Fatality Inquiry Act take precedence over such other Provincial statutes as the Hospital Act or alternatively. 2) That any privilege of privacy or otherwise granted to the hospitals, doctors, nurses or staff, must be with the patient or his legal representative and to be claimed or waived by such patient.	**Hospitals and Medical Care** The hospital concerned has implemented action appropriate to prevent a recurrence of a similar situation. Recommendations 1 and 2 are being reviewed.
16 Asphyxia, Immersion into Oxygen Depleted Atmosphere	Accidental. Both decedents were drilling a "conductor hole" for a drilling rig. One of the deceased used a winch line to form a stirrup around his foot and was lowered to the bottom of the hole. When there was no response from him, the other deceased slid down the same line to aid him.	1) Employees need frequent reminding of occupational hazards; to be constantly aware of the need to comply with OH & S regulations. 2) A worker should wear a safety belt with a shoulder harness attached to a lifeline.	**Occupational Health and Safety** The recommendations are being addressed in a Code of Practice. The Code will specify safe work procedures regarding the operation of augering holes for oil and gas well drilling rigs.

CASE		RECOMMENDATIONS	RESPONSE
17 Carotid Ligature and Cardio Respiratory Arrest	Accidental. Deceased was in a confrontation with an R.C.M.P. constable who applied a carotid control technique to restrain the deceased.	A review was conducted to determine: 1) If appropriate to apply the carotid techniques in circumstances where impossible for police officer to determine when subject has lapsed into unconsciousness. 2) If there should be mandatory communication between officers as to what each is doing when both are engaged in restraining the same subject. Code words would probably have to be employed. The review should be conducted by senior law enforcement officials, police physical training instructors and should include a forensic pathologist or other medical expert.	**Solicitor General** The Solicitor General has requested the R.C.M.P. to conduct a study respecting training procedures for police recruits.
18 Intra-operative Ventricular Fibrillation	Natural. An operation was in progress on deceased when his heart failed to function due to ventricular fibrillation. There was a failure in the E.C.G. monitor defibrillation life pack mechanism. (Calgary General Hospital).	1) That all hospitals in Alberta be provided with additional life pack for electronic equipment. At least one standby machine for open heart surgery. 2) That more rigid and frequent periods of inspection and services of all life pack equipment be undertaken.	**Calgary General Hospital** Additional sets of internal paddles were purchased, 3 sets are now available. In service training has been provided to all staff. These procedures are documented and available to staff. On a daily basis the cardiac arrest cart, defibrillator and emergency cart are checked and signed off by person responsible. Cardiac arrest procedure duties outlined for each nurse. Anaesthesia residents are oriented to the equipment and code procedures. All clinical clerks, residents and interns must report to the Control Desk nurse to identify themselves and report where they will be working. The Operating Room Advisory Committee has

			approved the changes in protocol. **Hospitals and Medical Care** Those hospitals with surgery programs all have two or more defibrillator monitors available to them. Each individual hospital is responsible for the maintenance and safe upkeep of these machines. The Department will issue an information bulletin to all active treatment hospitals reiterating minimum operative and maintenance standards.
19 Transaction of Cervical Spinal Cord	Accidental. Deceased fell from an office window of the neurosurgical ward of the University Hospital, Edmonton. He was suffering from head injuries sustained in a motor vehicle accident on June 15, 1983.	1) All windows in wards treating patients with brain injuries or mental problems should be limited to opening of 6 - 8" or have security screening bars in place at all times.	**University of Alberta Hospital** The Hospital has taken steps to limit the opening capacity of the windows to 8" on areas where patients with brain injuries or mental problems are generally treated.
20 Cold Exposure	Accidental. Deceased was a patient at Alberta Hospital, Ponoka. He was attending a social and dance in the recreation area from where he disappeared. Was found in a field 1 mile east of Ponoka.	1) Closer supervision of patients should be undertaken.	**Alberta Hospital, Ponoka** Security arrangements for patients are under constant review. Every effort will be made to prevent the reoccurance of this unfortunate accident.
21 Motor Vehicle Accident	Accidental. Motor Vehicle collision. The driver failed to stop for a stop sign which was not plainly visible and was wired to a tree at a bad angle. This road area was under construction near Pipestone, Alberta.	1) On road construction sites it must be ensured that proper traffic control signs are placed where easily seen. 2) On a multi-road zone the condition between Edmonton & Medicine, adjacent signs indicating distances should be placed in conjunction with the intersection.	**Alberta Transportation** Recommendations have been forwarded to all appropriate officials and instructions issued that these results be made known to all associated with construction and maintenance activities in the Department.

CASE		RECOMMENDATIONS	RESPONSE
22 Motor Vehicle Accident	Accidental. Driving at high rate of speed and under the influence of alcohol. Deceased had his driver's license suspended for 24 hours several hours prior to death. The accident took place in Lethbridge.	1) It is recommended that legislation provide peace officers with the additional power to impound ignition keys to vehicles at the time the suspension is imposed.	**Solicitor General** After review of the Recommendation it was determined that while impounding keys could provide an element of deterrence a potential problem could still exist with the large number of operators who maintain a second set of keys at home or magnetic key container hidden on body of car. While the recommendation may not now be feasible, further research and discussion relevant to the recommendation continues.
23 Right Epidural Hematoma due to Blunt Force Trauma	Accidental. Employed as a pipefitter near Joffre, Alberta. Deceased was assisting the move of 80' welded pipe from the welding location to the pipe ditch across the road. The pipe was moved by means of a cable attached to a boom on a crane. The crane fell off its out-riggers making the pipe swing striking the deceased.	1) Either 4 wheel brakes should be compulsory or all operators be advised to determine whether their equipment has 2 or 4 wheel brakes. 2) If adequate neurological facilities had been available at Red Deer Hospital then possibly the deceased's life could have been saved. I recommend such neurological facilities such as CAT scan be made available to that hospital. 3) If tag lines or ropes were used the men would have been further away from the swinging pipe. I recommend the use of tag lines in moving pipe.	**Occupational Health and Safety** September 1983 a safety bulletin was distributed to organizations, associations throughout Province, including labour organizations. Accident also publicized in the OH & S magazine. Tag lines already specified in Alberta regulation 271/76, Section 129. Use of tag lines was discussed with company management. A directive issued to our Inspection Branch personnel. A Provincial plan for installing CAT scanners is in effect including the hospital concerned.
24 Drowning	Accidental. During a heavy rainstorm in June 1983, water started coming back through manholes in which the cover was blown off by pressure. Deceased with a friend was watching the water, however he stepped back lost his footing and was sucked in by the pressure.	1) An educational program should be initiated by Municipal Corporations to alert the public particularly children and young of the risks and dangers. 2) The City of Edmonton / could continue to promote / and work with the ultimate objective of attaining a / form which will deny or minimize the creation of an open manhole.	**Education** Recommendation #1 can be accommodated in Alberta Schools through the health program. **Municipal Affairs** Alberta Disaster Services has sent a newsletter/ bulletin to each municipality warning them of the possibilities and dangers of manhole covers and popping.

CASE		RECOMMENDATIONS	RESPONSE
25 Cardiac Arrest	Accidental. Involved in a motor vehicle accident on July 30/83. R.C.M.P. took him to St. Paul Hospital and was examined at Emergency Unit. Since deceased kept insisting that he wanted to go home, the Doctor did not conduct any further examinations. He was taken to the R.C.M.P. cells for the remainder of the night and in the morning the deceased went back to hospital.	**1) It is recommended that when a patient has possible "steering wheel injuries" that such patient when brought to emergency be kept in hospital for observation and not released.** **2) That appropriate medical authorities and institutions such as Hospitals be made aware of the danger of release of patients without the procedures in Recommendation #1.** **3) That ambulances be equipped with appropriate systems on a unit to unit basis with R.C.M.P. and Indian Band Police. Also R.C.M.P. and Indian Band Police on a unit to unit basis.**	**St. Therese Hospital** Recommendation #2 brought to the attention of the Hospital staff. Communication equipment has been upgraded. Equipment allows Ambulance Services to communicate with R.C.M.P. and Indian Band Police. **Solicitor General** The incompatibility of radio systems at present is most important concern. It appears it would be possible to interconnect these systems through the A.G.T. network.
26 Crushed Skull	Accidental. Deceased was run over by a school bus from which he had been discharged.	**1) Consolidation of Legislation to ascertain the legislation and regulations regarding licensing testing, training of school bus operators.** **2) That a special class of license be created.** **3) That training be updated and reviewed on a regular basis.** **4) That parents/guardians be made responsible for loading/unloading of preschoolers.** **5) As school buses are replaced, that they be replaced by buses having cabs over the engines to eliminate blind spot in front of the bus.** **6) In the meantime, that all school buses be equipped with Dolly Parton type mirrors such equipment be made mandatory.**	**Alberta Transportation** Transportation Branch is implementing recommendations 1 and 3. Recommendation #6 is under review.

CASE		RECOMMENDATIONS	RESPONSE
27 Appendicitis and Intussusception of the Terminal ileum into the Cecum	Natural. Necessary health care delivery was unavailable to residents in the Wabasca/Desmaris area. The child had to be transported to the Slave Lake Hospital for health service.	**1) A hospital would certainly benefit the area plus one or more resident Doctors.**	**Hospitals and Medical Care** Recommendation #1 has been the focus for discussion during the past few years by several Government Departments and groups with interest in the Health Service delivery for Wabasca/Desmaris area. It has been indicated during these discussions that the planning, construction and operations of Hospital facilities in this area is the responsibility of the Slave Lake Hospital Board. The Board will take the findings and recommendations into consideration in determining their priorities.